

Claims

1. A closure cap (10) for a fixed neck of a container (50), in particular of a motor vehicle radiator, having an outer cap part (16) and having an inner cap part (15), in which the outer cap part (16) has both a closure element (17) for the container neck (11) and a grip element (18), rotatable relative to the container neck, between which grip element and the closure element (17) of the outer cap part (16) a torsion preventer (19) that can be engaged and disengaged via spring prestressing acts that can be disengaged by means of a pressure-controlled drive (14) in the form of a diaphragm (31), and the drive (14) is connected to a pressure-transmitting arrangement (48) that points toward the container interior, and in the inner cap part (15), a valve assembly (12, 13) for uncovering and blocking a fluidic communication between the container interior and the container exterior is provided, which valve assembly (12, 13) has both an axially movable overpressure valve body (12), which is pressed toward the container interior against a sealing seat on the inner cap part (15) with prestressing, in such a way that if a limit value of the container interior pressure is exceeded, it can be lifted from the sealing seat, and an underpressure valve body (13) disposed concentrically to the cap axis and correspondingly activatable, characterized in that the pressure-transmitting arrangement (48) is formed by axial pressure-transmitting conduits (47) in the wall (45) of the inner cap part (15), which wall receives the valve assembly (12, 13).

2. The closure cap as defined by claim 1, characterized in that the pressure-transmitting conduits (47) are distributed uniformly over the circumference of the wall (45) of the inner cap part (15).

3. The closure cap as defined by claim 1 or 2, characterized in that the one-piece diaphragm (31) on the outer circumference has an annular sealing edge (32), held in stationary fashion, and a centrally axially movable diaphragm plate (38), between which two diaphragm parts (32, 38) an annular bead (39) is provided.

4. The closure cap as defined by claim 3, characterized in that the sealing edge (32) of the diaphragm (31) is clamped in sealing fashion between an annular face end (33) of the inner cap part (15) and an annular edge (34) of a diaphragm holder (35).

5. The closure cap as defined by one of claims 1 or 2 and 3, characterized in that the inner orifice of the pressure-transmitting conduits (47) is located diametrically opposite the annular bead (39).

6. The closure cap as defined by at least one of the foregoing claims, characterized in that the pressure-transmitting conduits (47) are shaped conically, such that the smaller-diameter end forms the orifice toward the container interior.

7. The closure cap as defined by at least one of the foregoing claims, characterized in that the torsion preventer (19) is formed by a cuplike element (21), between whose bottom (20) and the diaphragm (31), on the one hand, a pressure disk (41) is disposed, and between whose bottom and the grip element (11), on the other, a compression spring (29) is disposed, and whose free edge is provided with coupling ribs (22), which are distributed over the circumference and point radially outward and which engage radial grooves (27, 26) of the grip element (18) alone or of the grip element (18) and the closure element (17) of the outer cap part (16), depending on the axial position of the cuplike element (21).

8. The closure cap as defined by claim 7, characterized in that the grip element (18) is provided with an axially inward-protruding extension (28), which is engaged on the inside by the cuplike element (21).

9. The closure cap as defined by at least one of the foregoing claims, characterized in that the interior of the inner cap part (15), receiving the valve assembly (12, 13), is covered by a fixed retaining plate (53).

10. The closure cap as defined by at least one of the foregoing claims, characterized in that the underpressure valve body (13) is integrated axially centrally into the overpressure valve body (12).